Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A tape library storage system, comprising:

at least one tape drive tray having a tape drive, power supply, fan, fault indicator light, and temperature sensor mounted therein;

an intelligence module stationary within the at least one tape drive tray, said intelligence module having electronics to control and monitor tape drive tray functions in the storage library, including electronics to control and monitor the tape drive, power supply, fan, temperature sensor, and fault indicator light; [[and]]

a main library controller interfaced to the intelligence module, wherein the intelligence module sends tape drive tray function data to the main library controller for use by the main library controller in commanding operations of the at least one tape drive tray, wherein, in response to receipt of the tape drive tray function data, the main library controller transmits a command to the intelligence module that the intelligence module decodes for use in controlling the at least one tape drive tray, including controlling the tape drive, power supply, fan, and fault indicator light.

2. (Original) The system in claim 1, wherein the intelligence module interface includes a tape transport interface port.

3. (Original) The system in claim 1, wherein the tape drive tray function data is sent via a wireless connection.

4. (Original) The system in claim 3, wherein the wireless connection includes at least one of a radio frequency or infrared transmission.

5. (Currently Amended) The system in claim 1, wherein the ~~main library controller transmits commands to be performed on the tape drive tray by the intelligence~~

~~module~~ at least one tape drive tray includes a loopback configured to loop the command back to the main library controller, wherein the command loops back to the main library controller for use in verifying integrity of communication lines used by the main library controller to communicate with the at least one tape drive.

6. (Currently Amended) The system in claim [[5]] 1, wherein positive or negative acknowledgment of the commands is sent back to the main library controller after the commands are received by the intelligence module.

7. (Original) The system in claim 5, wherein the main library controller transmits the command to the intelligence module in a serial format.

8. (Original) The system in claim 7, wherein the intelligence module decodes the serially formatted command into discrete signals corresponding to a specific tape drive tray interface.

9. (Currently Amended) The system in claim 1, wherein, in response to receipt of the tape drive tray function data, the main library controller issues the commands to multiple tape drive trays, the command being issued according to a common protocol such that at least two of the tape drive trays convert the commands differently to control the same tape drive tray function. ~~the tape drive tray includes at least one of a tape drive, a power supply, a fan, a temperature sensor, and a fault indicator light, each interfaced to the intelligence module.~~

10. (Original) The system in claim 1, wherein the intelligence module sends tape drive tray function information to the main library controller in a serial format.

11. (Original) The system in claim 1, wherein the tape drive tray function data is gathered by periodically sampling status signals from the tape drive tray.

12. (Currently Amended) A method of transmitting data between [[a]] multiple tape drive [[tray]] trays and a main library controller, comprising:

controlling and monitoring tape drive tray functions using an intelligence module stationary within [[the]] each tape drive tray, wherein at least two of the intelligence modules perform different protocol conversions to control tape drive tray functions; [[and]]

sending tape drive tray function data to a main library controller interfaced to [[the]] each intelligence module, wherein [[the]] each intelligence module sends the data to the main library controller; and

in response to receipt of the tape drive tray function data, the main library controller issues commands for controlling the tape drive trays, the commands being issued according to a common protocol such that the at least two intelligence modules convert the commands differently to control tape drive tray functions.

13. (Currently Amended) The method in claim 12, wherein each [[the]] intelligence module interface includes a serial interface to a tape drive.

14. (Original) The system in claim 12, wherein the tape drive tray function data is sent via a wireless connection.

15. (Original) The system in claim 14, wherein the wireless connection includes at least one of a radio frequency or infrared transmission.

16. (Currently Amended) The method in claim 12, wherein the main library controller transmits the same command according to the same common protocol to the at least two intelligence modules such that the at least two intelligence modules convert the same command differently to control the same tape drive tray functions ~~commands to be performed on the tape drive tray by the intelligence module~~.

17. (Currently Amended) The method in claim 16, wherein positive or negative acknowledgment of the commands [[is]] are sent back to the main library controller after the commands are received by the intelligence ~~module~~ modules.

18. (Currently Amended) The method in claim 16, wherein the main library controller transmits the ~~command~~ commands to the intelligence ~~module~~ modules in a serial format.

19. (Currently Amended) The method in claim 18, wherein each [[the]] intelligence module decodes the serially formatted command into discrete signals corresponding to a specific tape drive tray interface.

20. (Currently Amended) The method in claim 12, wherein each [[the]] tape drive tray includes at least one of a tape drive, a power supply, a fan, a temperature sensor, and a fault indicator light, each interfaced to the intelligence module.

21. (Currently Amended) The method in claim 12, wherein each [[the]] intelligence module sends tape drive tray function information to the main library controller in a serial format.

22. (Currently Amended) The method in claim 12, wherein the tape drive tray function data is gathered by periodically sampling status signals from each [[the]] tape drive tray.

23. (Currently Amended) A method of transmitting data from [[a]] multiple tape drive ~~tray~~ trays to a main library controller comprising:

periodically sampling status information generated from devices within the tape drive trays; ~~tray; and~~

sending the status information to the main library controller in a serial format from an intelligence module stationary within each [[the]] tape drive tray;

in response to receipt of the status information, the main library controller issuing commands for controlling the tape drive trays, the commands being issued according to a common protocol such that at least two intelligence modules convert the commands differently to control the same tape drive tray functions; and

periodically, with a loopback feature included within each tape drive tray, looping at least one of the commands to the main library controller, the main library controller verifying integrity of at least one communication line used by the main library controller to communicate with the tape drive trays based on the looped backed command.

24. (Original) The method in claim 23, wherein the devices generating status information include at least one of a tape drive, a power supply, a fan, a temperature sensor, and a fault indicator light.

25. (Currently Amended) A method of controlling devices located within a tape drive tray, comprising:

transmitting control data from a main controller to the tape drive tray in a serial format;

receiving the control data at the tape drive tray, wherein a stationary intelligence module within the tape drive tray decodes the control data; [[and]]

using the stationary intelligence module to drive discrete signal lines to a state as specified in the control data;

periodically, with a loopback feature included within the tape drive tray, looping at least a portion of the control data back to the main library controller; and

the main library controller to verifying integrity of at least one communication line used by the main library controller to communicate with the at least one tape drive based on the looped backed portion of the control data.